

REMARKS

Upon entry of the claim amendments, Claims 1-3 and 5 will be all the claims pending in the application.

Applicants have incorporated subject matter from Claim 4 into Claim 1. Claim 4 has been canceled.

Claims 2-3 and 5 have been amended to render them consistent with amended Claim 1 and the cancellation of Claim 4.

No new matter has been added.

I. RESPONSE TO REJECTION UNDER 35 U.S.C. § 102/§ 103

Referring to Section No. 6 at page 4 of the Office Action, Claims 1-3 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over each of U.S. Patent No. 5,160,599 (“Sahashi”) or U.S. Patent No. 3,961,946 (“Makino”).

Applicants respectfully traverse. Neither Sahashi nor Makino discloses or suggests the presently claimed subject matter.

Claim 1 is the only pending independent claim. It is directed to a magnetic recording medium comprising a substrate, a soft magnetic layer, a perpendicular magnetic layer, and a protective layer, the layers being provided atop the substrate. The perpendicular magnetic layer of Claim 1 comprises a magnetic crystalline alloy. The alloy of Claim 1 comprises Pt in an amount of 40 at% to 60 at%, and at least two 3d transition metal elements selected from the group consisting of Cr, Mn, Fe, Co, Ni, and Cu. The total amount of the 3d transition metal elements in Claim 1 is from 60 at% to 40 at%. Also, Claim 1 recites that the average number of valence electrons in the respective 3d transition metal elements as calculated on the basis of the compositional proportions of the elements is from 7.5 to 8.55.

Sahashi does not disclose or suggest the subject matter of Claim 1.

The examiner asserts that Sahashi teaches specific examples of Pt-based alloys having compositions that are encompassed by the present claims. The examiner specifically points to column 2, lines 58-62, and column 4, lines 59-61, of Sahashi.

Applicants respectfully disagree.

The alloys of Sahashi are iso-molar compounds. See column 1, lines 38-42. In other words, the A:(Fe_{1-x}A'_x):A'' alloys of Sahashi are in a 1:1:1 molar ratio. See column 3, lines 38-40. For example, the Pt(Fe_{1-x}Mn_x)Sn alloy of Sahashi has a molar ratio of Pt:(Fe_{1-x}Mn_x):Sn = 1:1:1 and an existence ratio of Pt:(Fe_{1-x}Mn_x):Sn = 33.3 at%: 33.3 at% : 33.3 at%. Thus, the alloys of Sahashi do not disclose or suggest the feature of Claim 1 that the alloy comprises Pt in an amount of 40 at% to 60 at%.

In short, (i) Sahashi does not disclose each and every element of the claimed subject matter and (ii) Sahashi does not provide the motivation for one of ordinary skill in the art to modify its iso-molar compounds in order to arrive at the alloy recited in Claim 1.

Turning to the Makino aspect of the present rejection, the examiner asserts that Makino teaches specific examples of Pt-based alloys having compositions that are encompassed by the present claims. The examiner specifically points to column 4, lines 53-56, and Example 1 at column 5 of Makino.

However, Makino discloses magnetic alloys containing Pt, Co, and Ni. See Makino's abstract. Each of the specific alloys disclosed in Makino is a Pt-Ni-Co type alloy. See FIGS. 1 and 2, column 4, lines 30, 33, 53-56, and 63, Examples 1 and 2, and Claim 1. Accordingly, the alloys disclosed in Makino necessarily contain an average number of valence electrons greater than nine. For example, the average number of valence electrons in the Pt_{0.5}(Ni_{0.75}Co_{0.25}) alloy of Makino's Example 1 is 9.75.

Therefore, (i) Makino does not disclose each and every element of the claimed subject matter and (ii) Makino does not provide the motivation for one of ordinary skill in the art to modify its magnetic alloys containing Pt, Co, and Ni in order to arrive at the alloy recited in Claim 1.

For the reasons above, Applicants request withdrawal of the present rejection.

II. RESPONSE TO REJECTION UNDER 35 U.S.C. § 102/§ 103

Referring to Section No. 7 at page 5 of the Office Action, Claims 1-3 are rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent Application Publication No. 2005/0106449 (“Fan”).

Applicants respectfully traverse. Fan does not disclose or suggest the presently claimed subject matter.

Applicants have incorporated subject matter from Claim 4 into Claim 1. Accordingly, Claim 1 is directed to a magnetic recording medium. The invention of Fan, on the other hand, is in the field of metal catalysts useful in fuel cell electrodes and other catalytic structures. Thus, Fan does not disclose or suggest the magnetic recording medium of Claim 1. Indeed, Claim 4 was not included in the present rejection.

Withdrawal of the present rejection is requested.

III. RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Referring to Section No. 9 at page 6 of the Office Action, Claims 4 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over each of Sahashi and Makino.

Applicants respectfully traverse.

For the reasons stated at Section I above, neither Sahashi nor Makino discloses or suggests the presently claimed magnetic recording medium. Withdrawal of the present rejection is requested.

IV. CONCLUSION

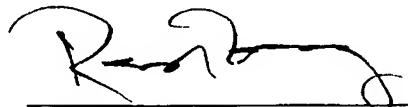
Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/628,242

Atty. Docket No. Q71333

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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